

REMARKS

Claims 26-42 are pending in the subject application. Applicant has amended claim 26 and added new claims 39-42. Applicant respectfully submits that the amendments to claim 26 more clearly define Applicants' invention and distinguish it over the prior art of record. Support for new claims 39-42 can be found in the application, for example: FIGS. 1-7 and associated text for claims 39, 40; FIGS. 1-7 and paragraph 0039 for claim 41; and paragraphs 0035, 0038 for claim 42. No new matter has been added to the application by virtue of the present amendment.

Claim Rejections – 35 U.S.C. 102 (b)

The Examiner has rejected claims 26, 28, 35 and 37-38 under 35 U.S.C. 102(b) as being anticipated by Beasom (U.S. Patent No. 5,841,169).

Applicant has amended claim 26 to more clearly distinguish Applicant's method over Beasom. For example, referring to FIG. 1 of the application, doped regions 12, 14 and 20 are formed on a substrate 10. No portion of the substrate 10 is removed and replaced when forming doped regions 12, 14 and 20 (see paragraph 0035). Thus, the doped regions 12, 14 and 20 are formed on the substrate 10 and no part of the substrate is removed and replaced with another material which is then used to form a "modified" substrate.

Beasom does not anticipate or suggest Applicant's claim 26, as amended, and claims dependent thereupon. Referring to column 4, lines 14-53 and FIG. 2 of Beasom, Beasom teaches a method of etching a single crystal substrate to remove entire portions of the substrate to form trenches with a tapered shape outside of single crystal regions where devices are to be formed. Oxide layers 209, 211, 219 are then formed on sidewalls (and bottom) of the trenches. The trenches are then filled with polysilicon to form a "new" substrate surrounding the single crystal device regions (i.e. 202, 212). Doped regions (ie. 202-207, 212-217) are then formed in the single crystal device regions. Thus, Beasom removes entire portions of the original single crystal

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substrate surrounding single crystal substrate regions in which devices are subsequently formed and replaces the removed single crystal substrate portions with another material (e.g. polysilicon). Beasom explicitly states that the polysilicon "... will ultimately serve as the integrated circuit substrate" (column 4, lines 36-37). Beasom is silent on forming doped regions on a substrate without removing and replacing any portion of the substrate. The method of Beasom adds process complexity and cost due to the additional removal and substitution steps.

Therefore, Applicant believes the rejections to the claims under 35 U.S.C. 102(b) have been overcome.

Claim Rejections – 35 U.S.C. 103 (a)

The Examiner has rejected claims 29 and 31-33 under 35 U.S.C. 103(a) as being unpatentable over Beasom (U.S. Patent No. 5,841,169); claims 27 and 30 under 35 U.S.C. 103(a) as being unpatentable over Beasom in view of Mack et al. (U.S. Patent No. 4,736,271); and claims 34 and 36 under 35 U.S.C. 103(a) as being unpatentable over Beasom in view of Robinson et al. (U.S. Patent No. 5,268,316).

As discussed above, Applicant respectfully submits that Beasom, individually or in combination with Mack et al. or Robinson et al., does not teach or suggest Applicant's claim 26, as amended, or claims dependent thereupon.

Therefore, Applicant believes the rejections to the claims under 35 U.S.C. 103(a) have been overcome.

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CONCLUSION

In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicant respectfully requests that the outstanding rejections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fee is due by virtue of this amendment. However, if the PTO determines that a fee is required, please charge Applicant's Deposit Account, 09-0456. If any extensions or fees are not accounted for, such extension is requested and the associated fee should be charged to our deposit account.

Respectfully Submitted,

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